Montana 2009 HIV/STD Annual Report

August 2010

MONTANA
Department of Public Health & Human Services

DPHHS
MONTANA
Communicable Disease
Epidemiology Program

Cover photo from: http://darkwing.uoregon.edu/~nhampton/picgallery/stateflowers_files/image006.jpg

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Summary

Human immunodeficiency virus (HIV)

- As of December 31, 2009, 955 cases of HIV infection and acquired immunodeficiency syndrome (AIDS) have been reported to the Montana Department of Public Health and Human Services (MTDPHHS) since reporting began in 1985. Of these, 445 (45%) persons are known to be alive and living with HIV infection in Montana.
- Montana is considered a "low HIV incidence" state. From 2000 to 2009, 16–31 newly diagnosed cases of HIV infection were reported each year.
- Nearly 9 of every 10 reported cases of HIV infection have occurred in men.
- Men who have sex with men (MSM) account for >50% of the reported cases of HIV infection in Montana.
- The largest risk factor for HIV infection in females is heterosexual contact.
- Nearly 90% of reported cases of HIV infection occurred in persons classified as White, not Hispanic, constitute about 90% of Montana's population. Approximately 7% of the reported cases of HIV infection occurred in persons classified as American Indian/Alaskan Native (AI/AN), who constitute 6.3% of Montana's population.
- Since 2000, the average age at the time of HIV infection diagnosis is in the upper 30s.
- In 2008, of the known persons living with HIV infection, an estimated 80% sought medical treatment for HIV infection.
- Some disadvantaged populations in Montana might encounter barriers to accessing HIV testing and medical treatment, and cases of HIV infection in these populations might go underreported. Therefore, the number of reported cases of HIV infection for disadvantaged populations might not reflect the true burden of disease in these populations.

Other sexually transmitted diseases (STDs)

- STD cases were reported from the majority of counties in 2009. Since 2000, *Chlamydia trachomatis* infection (chlamydia) has remained the most commonly reported STD followed by *Neisseria gonorrhoaea* infection (gonorrhea).
- The majority of chlamydia and gonorrhea infections were reported in persons reporting their race as White, not Hispanic. The incidence rate was 6.5 times higher in AI/AN compared with Whites. However, these data should be interpreted with caution as 14% and 20% of chlamydia and gonorrhea cases, respectively, had no race classification; assigning a race to these cases could lead to a significant change in the race-specific incidence rates.
- In 2009, the majority of chlamydia and gonorrhea cases were reported among those persons aged 20–24 years and 15–19 years.
- Thirty-three cases of *Treponema pallidum* infection (syphilis) were reported 2000–2009. Of these cases, 26 (79%) were male. Cases were not generalized to one age category.

Introduction

This report provides information about reported cases of HIV infection and selected STDs in Montana and is meant to provide an overview of the characteristics for cases of each disease. Information from this report is intended to help plan HIV/STD prevention and control programs.

The profile is presented in several parts. The 'General Demographics' section describes, in general, Montana's characteristics and demographics. The 'HIV' section describes characteristics of those diagnosed with HIV infection and access to medical treatment for those living with HIV infection. The 'STD' section includes demographic and geographical characteristics of those diagnosed with selected STDs, including chlamydia, gonorrhea, and syphilis. Acronyms used throughout the report are listed in the glossary at the end of this document.

In Montana, reporting of AIDS began in 1985 and HIV infection in 2000. Case reports are collected through passive and active surveillance. All newly diagnosed cases of HIV infection in Montana are reportable as well as persons living with HIV infection who have moved to Montana, but were diagnosed with HIV infection elsewhere. The HIV surveillance system uses a standard case report form to collect demographic, risk factor, treatment, vital status, and laboratory information. All personally-identifiable information collected is strictly confidential and only general demographic data are transmitted to the national database. Names and addresses are not reported. Information collected is used to guide HIV prevention efforts.

STD information is collected through a similar surveillance system using a case report form, allowing for tracking of STD case trends. Databases for both HIV and STD are maintained and updated daily with case information, including demographic and laboratory data. The data shown in this report were extracted from the HIV database on Dec 31, 2009 and include STD cases reported from 2000 through 2009.

This report is subject to several limitations, including:

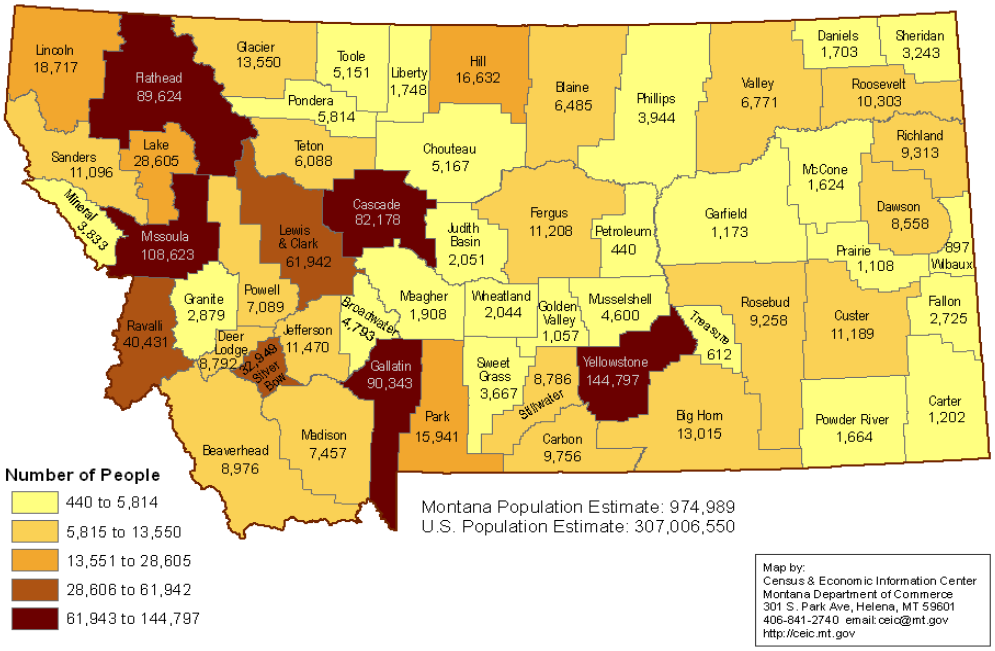
- Bias towards reporting STD cases in women as more women compared with men seek family planning services where STD screening is often completed;
- Reported HIV and STD cases might be biased towards those who seek health-care;
- Case numbers are likely minimum estimates as these data rely on reporting.
- Incomplete reporting might affect interpretation of the data. For instance, case rates might appear higher in counties with more complete reporting compared with counties with missing or incomplete reporting; and,
- Small sample sizes can limit the ability to perform additional analysis. For instance, stratification of a data set containing a small number of cases might be problematic as the addition of one extra case to a subgroup might lead to large percentage differences between subgroups.

This profile was prepared by the MTDPHHS HIV Surveillance program in collaboration with the STD, Ryan White CARE, and HIV Programs. Questions or comments can be directed to the Communicable Disease Epidemiology Program at (406) 444-0273.

General Demographics

In 2009, the population of Montana was approximately 975,000 (Figure 1). Populations in the 56 counties range from less than 500 in Petroleum County to over 140,000 in Yellowstone County. By density, 45 counties in Montana are classified as frontier[a], 10 rural[b], and one as metropolitan[c] (Yellowstone).[2]

Figure 1. County populations in Montana, 2009



Demographic Composition

The proportion of the population in selected age groups is shown in Table 1.

Table 1. Percent of population in selected age groups — Montana, 2006–2008.

Age in Years	*Percent*
Under 5	6.3
5–14	12.4
15–24	14.4
25–44	24.5
45–64	28.5
Over 65	13.9

[a]Frontier: ≤6 persons per square mile
[b]Rural: 6–50 persons per square mile
[c]Urban: >50 persons per square mile

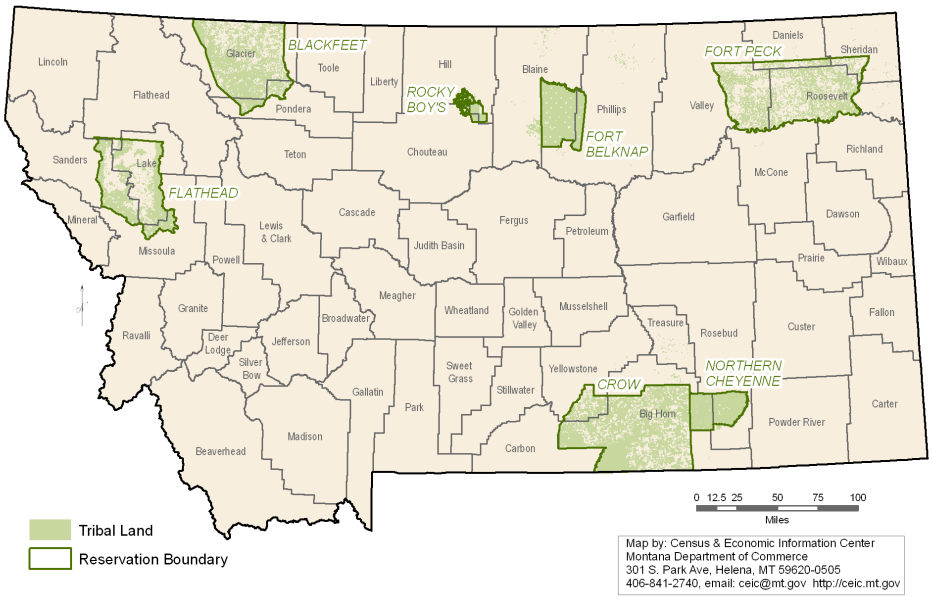
From 2006 to 2008, most Montanans reported being either White, not Hispanic (89.6%) or AI/AN (6.2%). Montana has less racial diversity compared with the U.S. (Table 2).

Table 2. Percent population by race/ethnicity — Montana and U.S., 2006–2008.

Race/Ethnicity	*Montana (%)*	*US (%)*
White, not Hispanic	89.6	74.3
American Indian/Alaska Native (AI/AN)	6.1	0.8
Black or African American	0.6	12.3
Asian	0.6	4.4
Native Hawaiian and Other Pacific Islander	0.1	0.1
Some other race	0.7	5.8
Two or more races	2.3	2.2
Hispanic or Latino, any race	2.8	15.1

Montana contains seven American Indian reservations (Figure 2).

Figure 2. Location of American Indian reservations, Montana.



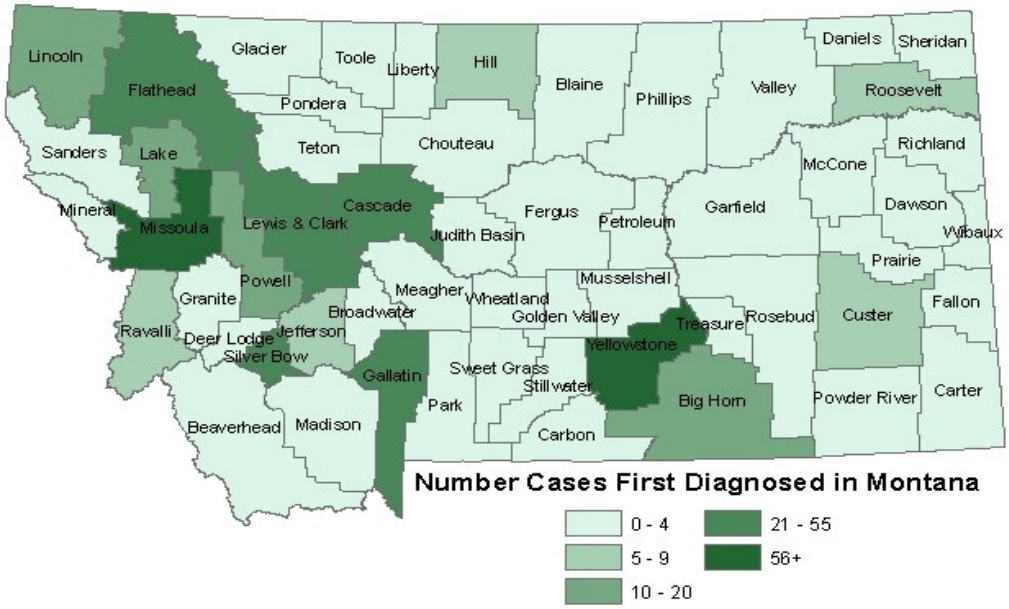
Key Points — Demographics:

- Fifty-five (98%) of Montana's 56 counties are classified as frontier or rural.
- Approximately 42% of Montana's population is over the age of 45 years.
- Approximately 90% of Montana's population is classified as White, not Hispanic.
- Montana's largest minority population is classified as AI/AN.
- Montana has seven American Indian reservations.

Cumulative HIV Data

Since 1985, 955 cases of HIV infection have been reported in Montana. Of those, 595 (62%) were first diagnosed in Montana. Nearly 70% of those diagnosed with HIV infection while living in Montana resided in one of the seven most populated counties (Yellowstone, Missoula, Gallatin, Flathead, Cascade, Lewis & Clark, and Ravalli) at the time of diagnosis (Figure 3).

Figure 3. County of residence for cases of HIV infection (n=595) diagnosed — Montana, 1985–2009.



Over time, the proportion of cases of HIV infection known to have died has decreased, while the proportion of those living with HIV infection has increased (Figure 4).

Figure 4. Cumulative frequency of persons reported living with HIV infection and deaths of persons infected with HIV, by year of diagnosis or death — Montana, 1985–2009.

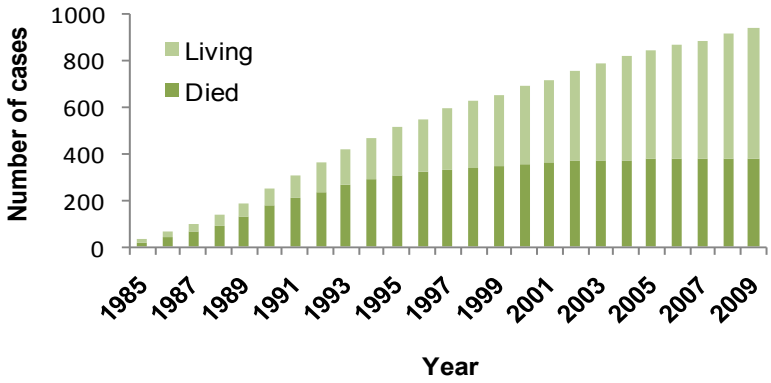


Table 3. Cumulative reported cases of HIV infection by selected characteristics — Montana,1985–2009.

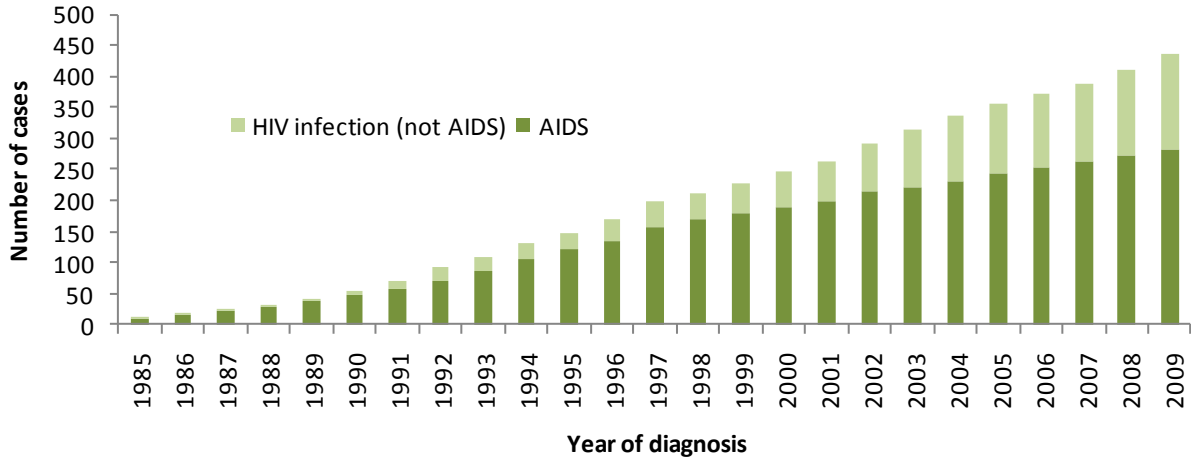
Characteristic	*Cases diagnosed in MT and out-of-state (n=955)*	*Cases diagnosed in MT (n=595)*
Sex	**Number (%)***	**Number (%)***
Male	838 (88)	512 (86)
Female	117 (12)	83 (14)
Age at Diagnosis		
Under 5	6 (<1)	4 (<1)
5-12	0 (0)	0 (0)
13-19	27 (3)	12 (2)
20-29	286 (30)	174 (29)
30-39	379 (40)	228 (38)
40-49	157 (17)	100 (17)
50-59	76 (8)	57 (10)
Over 59	20 (2)	18 (3)
Race		
White, not Hispanic	826 (87)	514 (87)
AI/AN†	61 (6)	43 (7)
Mixed Race	8 (1)	6 (1)
Other	58 (6)	32 (5)
Risk factor		
MSM§	513 (54)	308 (52)
IDU¶	122 (13)	73 (12)
MSM/IDU**	111 (12)	55 (9)
Heterosexual	96 (10)	73 (12)
Other	28 (3)	22 (4)
Risk not specified	85 (9)	64 (11)

*Section total may not sum to overall total because of rounding.
†American Indian/Alaskan Native
§Men who have sex with men
¶Intravenous drug user
**Men who have sex with men and intravenous drug user

Persons Living with HIV Infection

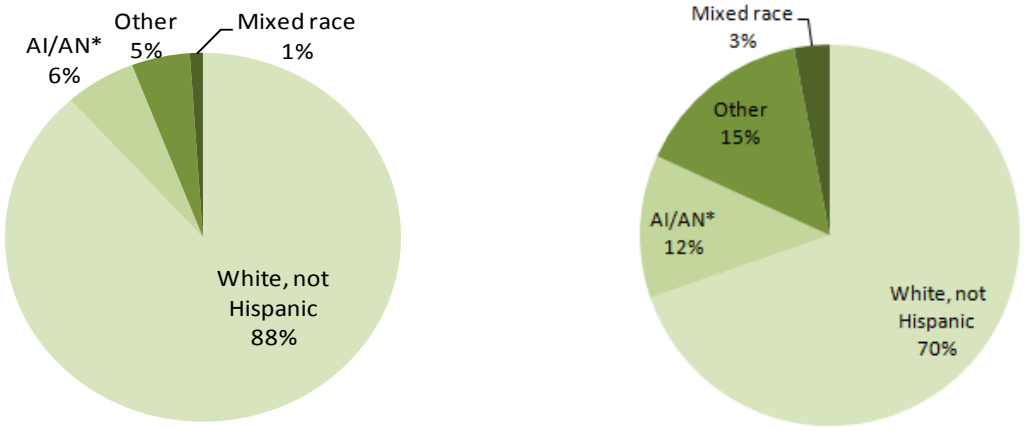
The following demonstrate characteristics of persons living with HIV infection (PLWH) in Montana, including those originally diagnosed out-of-state. As of December 31, 2009, 435 persons living with HIV infection were known in Montana. During 2009, MTDPHHS de-duplicated the database and updated patient addresses and removed artifactual data. Consequently, in this report, the number of PLWH during 2008 is lower compared with the number of PLWH reported in the 2008 report. Since 1985, the number of PLWH in Montana has steadily increased. As of December 2009, 281 (63%) persons living with HIV infection had been reported as AIDS cases (Figure 5).

Figure 5. Persons living with HIV infection, with and without acquired immunodeficiency syndrome (AIDS), by year of diagnosis — Montana, 1985–2009.



Minorities constitute a larger proportion of female cases compared with male cases (Figure 6).

Figure 6. Persons living with HIV infection (n=445), by sex and race — Montana, 2009.

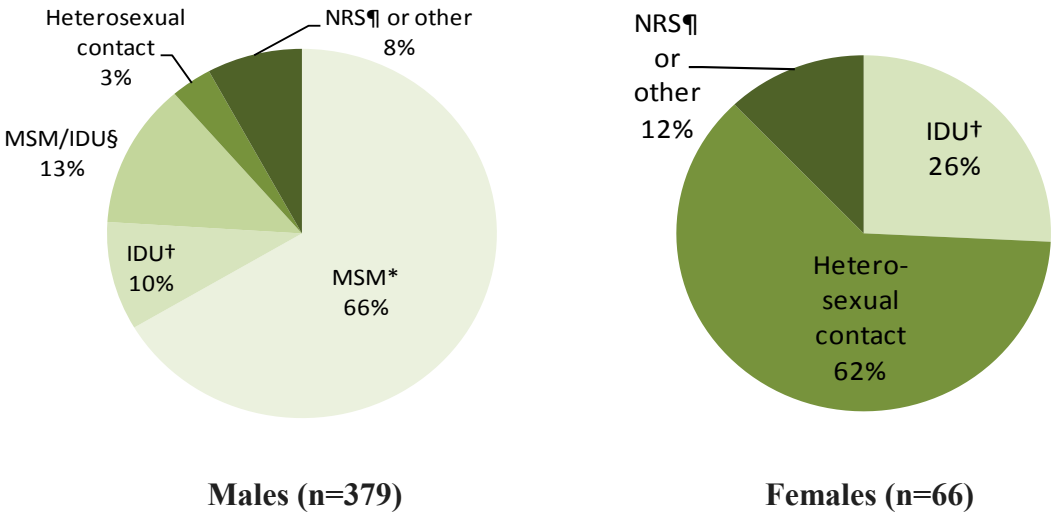


Males (n=379) **Females (n=66)**

*American Indian/Alaskan Native

The majority of prevalent male HIV infection cases are MSM and the majority of prevalent female cases reported heterosexual contact as the predominant risk factor (Figure 7).

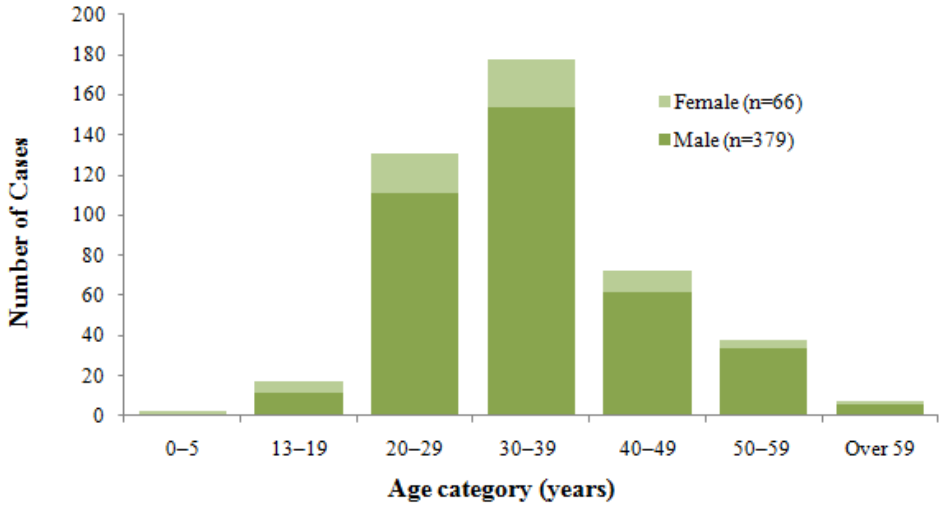
Figure 7. Persons living with HIV infection (n=445), by sex and risk factor — Montana, 2009.



*Men who have sex with men
†Intravenous drug user
§Men who have sex with men and intravenous drug user
¶No risk factor specified

Most persons living with HIV infection were diagnosed between the ages of 30 to 39 years (Figure 8).

Figure 8. Persons living with HIV infection (n=445), by sex and age category at time case reported to public health — Montana, 2009.



Newly Reported HIV Cases

From 2000 to 2009, 16–31 cases of HIV infection were reported each year (Figure 9). In 2009, 31 cases of HIV infection were reported, an incidence rate of 3.2 cases per 100,000 population. In 2007, the estimated incidence rate of reported HIV infection cases in Montana was 1.7 cases per 100,000 population, while the rate in the U.S. was 21.1 per 100,000 population.

Figure 9. Reported cases of HIV infection — Montana, 2000-2009.

Table 4 compares newly reported cases in four periods. The percentage of persons diagnosed with AIDS less than one year after initial reporting of their HIV infection remains high.

Table 4. Selected characteristics of reported cases of HIV infection — Montana, 2000-2009.

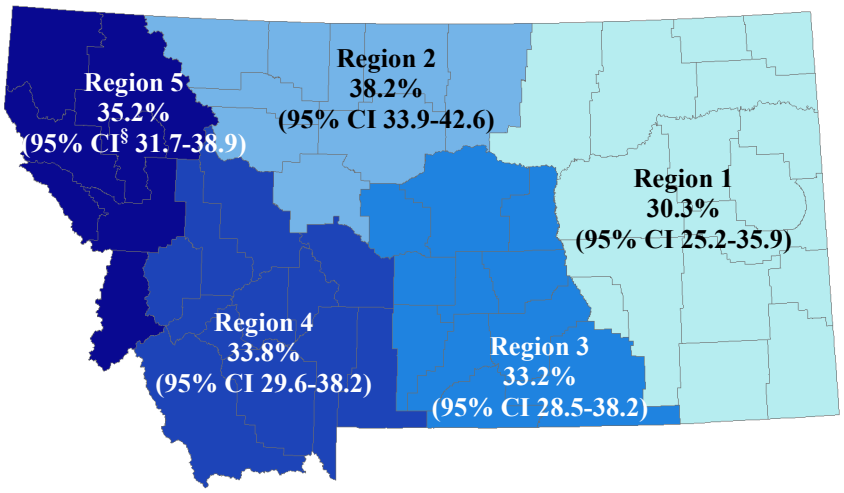
Characteristic	*2000–2004*	*2005–2007*	*2008*	*2009*
Newly reported cases	Mean avg = 23/yr	Mean avg = 17/yr	22	31
Mean age at time infection is reported	37	39	37	36
Percent male	83	92	73	97
Percent reporting race other than White, not Hispanic	11	10	18	10
Percent reporting risk factor				
-MSM*	49	62	50	71
-IDU†	9	2	5	6
-MSM/IDU§	8	6	0	13
-Heterosexual sex	13	12	27	3
-Risk not specified	21	18	18	6
Percent receiving AIDS diagnosis <1 year after initial case reported	35	50	45	39¶
Percent of newly reported cases occurring in one of 7 most populated counties**	68	76	82	87

*Men who have sex with men; †Intravenous drug user; §Men who have sex with men and intravenous drug user
¶Data is preliminary until 12/31/2010; **Yellowstone, Missoula, Gallatin, Flathead, Cascade, Lewis & Clark, and Ravalli Counties.

HIV Testing

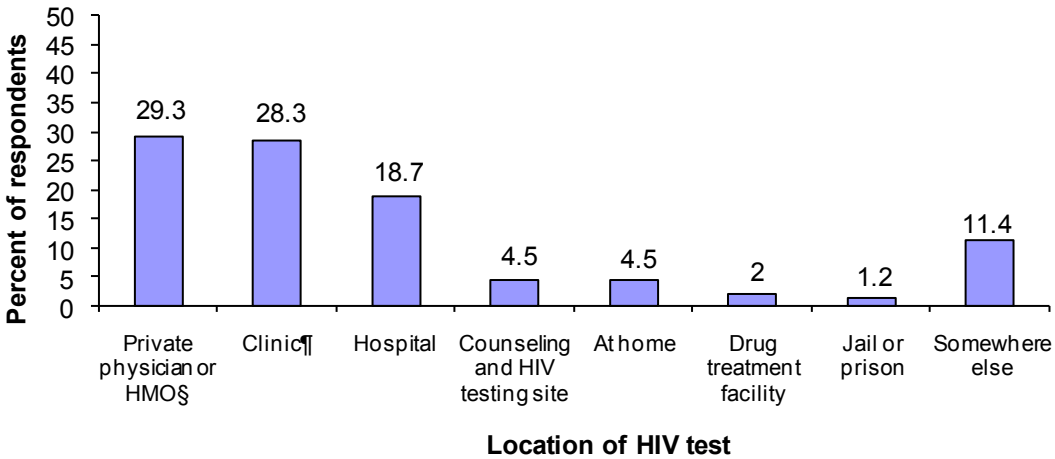
The percentage of persons aged 18 to 64 years tested for HIV infection was estimated by health planning region using data from the 2007 Behavior Risk Factor Surveillance System (BRFSS) (Figure 10). In 2007, nearly 35% of Montana's survey respondents 18 to 64 years of age reported having ever been tested for HIV infection compared with 42% for the U.S.[2] Most HIV testing occurred in a private physician's office (28%) or a public health department clinic (29%) (Figure 11).

Figure 10. Percent of persons aged 18 to 64 years reporting having ever been tested for HIV infection*, by Health Planning Region — Montana, 2007†.



*Excludes testing for HIV infection as part of blood donation screening
†Data collected from the Behavioral Risk Factor Surveillance System (BRFSS)
§CI = confidence interval

Figure 11. Location of testing for HIV infection in those who reported having ever been tested* — Montana, 2007†.



*Excludes testing for HIV infection as part of blood donation screening; †Data collected from the Behavioral Risk Factor Surveillance System (BRFSS); §HMO = health maintenance organization; ¶Public health department clinic

Ryan White CARE Act

In 1990, the Ryan White CARE Act established a federal program and each year in the U.S., this program has funded services to over 500,000 people infected with HIV.[3] Montana receives Ryan White CARE Act funds to support drug assistance, public clinics, and program planning and evaluation. Two cities, Missoula and Billings, receive separate funds to support community-based health-care providers. In total, Ryan White funds support seven clinics in Montana.

Despite the availability of HIV treatment services in Montana, approximately 20% of PLWH in Montana did not seek medical treatment for HIV infection in 2009 (Table 5). Not seeking medical treatment for HIV infection is defined as the patient did not have a CD4+ count or a HIV viral load test reported to the state from a public or private health-care provider.

Table 5. Percentage of persons living with HIV infection that did not access HIV-related treatment*, by AIDS diagnosis, sex, race, and age category — Montana, 2009.

	Percent not seeking treatment
Diagnostic Status	
HIV infection (not AIDS)	23
AIDS	18
Sex	
Male	20
Female	18
Race	
White, not Hispanic	19
AI/AN†	20
Mixed Race	0
Other	36
Age at Diagnosis	
Under 5	—
13–19	24
20–29	27
30–39	19
40–49	11
50–59	16
Over 59	14
Overall	20

*Did not have a CD4 or HIV viral load reported to the state from a public or private provider in 2009;†American Indian/Alaskan Native

Key Points — HIV:

Newly reported cases of HIV infection

- Montana is considered a 'low HIV-incidence' state.
- Since 1995, 955 cases of HIV infection have been reported in Montana.
- The number of persons newly reported with HIV infection has increased each year since reporting began in 1985.
- From 2000 to 2009, 16–31 cases of newly diagnosed HIV infection were reported annually.

Persons living with HIV infection

- The percent of patients dying with HIV infection and AIDS continues to decrease.
- As of December 31, 2009, 435 HIV-infected persons were known to be living in Montana.
- Of those living with HIV infection in Montana, 281 (63%) have been diagnosed with AIDS.

Patient characteristics

- Over 60% of the cases of HIV infection in Montana were first reported in-state.
- Nearly 70% of those diagnosed with HIV infection while living in Montana resided in one of the seven most populated counties (Yellowstone, Missoula, Gallatin, Flathead, Cascade, Lewis & Clark, and Ravalli) at the time of diagnosis.
- The majority of persons reported with HIV infection were classified as White, not Hispanic (87%) followed by American Indian/Alaskan Native (AI/AN) (6%).
- Of the 955 cases of HIV infection diagnosed, 838 (88%) have occurred in males.
- The most common age category at the time of HIV infection reporting is 30–39 years (40%) followed by 20–29 years (30%) and 40–49 years (17%).
- In 2009, among males infected with HIV, men who have sex with men (MSM) was the most commonly reported risk category (66%), followed by MSM/intravenous drug user (IDU) (13%) and IDU (10%).
- Among females infected with HIV, heterosexual contact was the most commonly reported risk factor (62%) followed by IDU (26%).

Testing

- In 2007, 35% of Montana residents aged 18–64 years that responded to the BRFSS survey reported previous HIV testing compared with 42% of the U.S. population.
- Of those Montana residents reporting previous HIV testing, approximately 30% report being tested at a physician's office, 28% at a clinic, and 19% at a hospital; less than 5% reported undergoing HIV testing at home.

Treatment

- Ryan White funds support seven clinics in Montana — monies support drug assistance, public clinics, and program planning and evaluation.
- In 2009, an estimated 20% of persons living with HIV infection in Montana did not have a CD4+ count or viral load reported to MTDPHHS from a health-care provider.

In this section, we present data related to HIV, including co-infection with hepatitis C, opportunistic infections, and other commonly diagnosed medical conditions among persons living with HIV infection. A better understanding of co-morbid conditions among persons living with HIV infection is important because persons infected with HIV often report not discussing co-morbid conditions with their health-care providers (http://www.iapac.org/ATLIS).

Table 6. Cumulative reported HIV and hepatitis C co-infections* — Montana, 1985–2009.

Mode of Exposure to HIV	*Male (%)*	*Female (%)*	*Total (%)*
MSM†	25 (30)	—	25 (25)
IDU§	20 (24)	10 (59)	30 (30)
MSM/IDU¶	28 (33)	—	28 (28)
Heterosexual	1 (1)	6 (35)	7 (7)
Risk not specified/other**	10 (12)	1 (6)	11 (11)
Total	**84**	**17**	**101**

Males co-infected with HIV and hepatitis C most commonly reported MSM and MSM/IDU as risk categories. Females co-infected with HIV and hepatitis C most commonly reported IDU (Table 6).

* The number of persons co-infected with HIV/hepatitis C is likely underreported as Montana does not have a formal surveillance system for reporting HIV/hepatitis C co-infection; †Men who have sex with men; §Intravenous drug user; ¶Men who have sex with men and intravenous drug user; **Transfusion of blood products, solid organ or tissue transplantation, or mode of exposure not classified elsewhere.

Table 7. Number and percent of Medicaid claims for opportunistic infections* among persons living with HIV infection — Montana, 2004–2008.

	Number (%)
Total Medicaid claims	11,330
Opportunistic infections (OI) diagnosed	62 (2.2)
OIs diagnosed that were reported	7 (11)

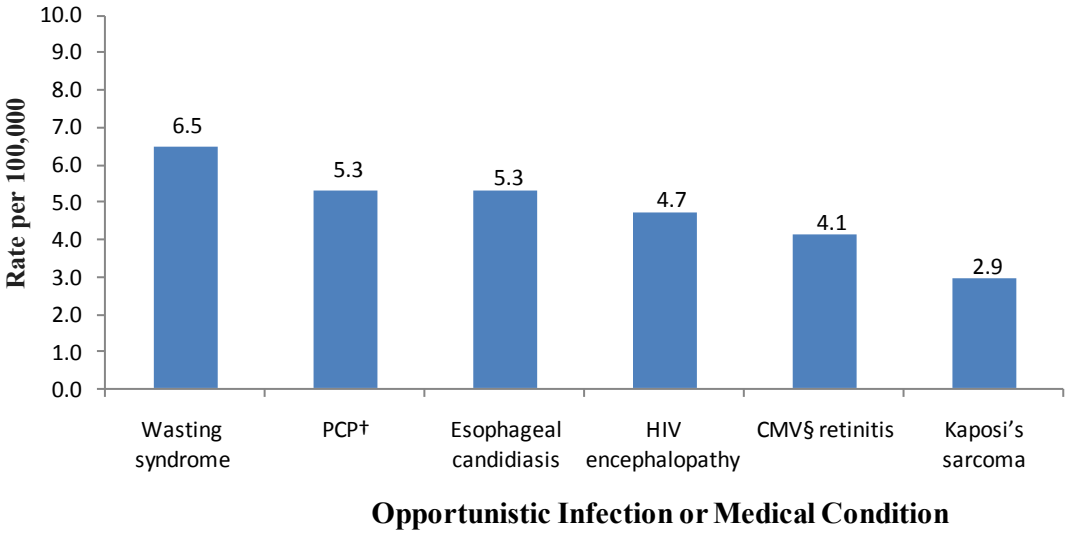
*Excluding recurrent pneumonia

Persons with HIV infection are diagnosed with AIDS upon the presence of either an AIDS-defining opportunistic infection or condition (OI), or a CD4+ T-lymphocyte count less than 200 cells/µl (<14%)[1]. The Montana Administrative Rules require reporting of OIs in persons living with HIV infection at the time of initial diagnosis of AIDS[2]. However, reporting of OIs occurs infrequently when an OI is identified after the initial diagnosis of AIDS. This section describes the frequency of OI diagnoses and the proportion of these diagnoses reported in persons living with HIV infection who were enrolled in the Montana Medicaid Program from 2004 to 2008.

From 2004 to 2008, 11,330 claims were made by persons living with HIV infection, of which 2.2% were for OIs (Table 7). In Montana, 62 claims for OIs were filed among persons living with HIV infection, of which seven (11%) were reported to the Communicable Disease Epidemiology Program. The most commonly reported OIs are shown in Figure 12. Recurrent pneumonia was not assessed because of non-specific diagnostic codes.

1. Revised Surveillance Case Definitions for HIV Infection Among Adults, Adolescents, and Children. www.cdc.gov/mmwr/preview/mmwrhtml/rr5710a1.htm
2. Administrative Rules of the State of Montana www.mtrules.org/
3. Aberg J, Kaplan J, Libman H, *et al*. Primary Care Guidelines for the Management of Persons Infected with Human Immunodeficiency Virus: 2009 Update by the HIV Medicine Association of the Infectious Diseases Society of America. *Clin. Inf. Dis.* 2009; 49:651-81.

Figure 12. Percent of persons living with HIV infection* who had AIDS-defining opportunistic infections among Medicaid clients — Montana, 2004–2008.



*Rates reported for opportunistic infections with 5 or more cases 2004–2008, excluding recurrent pneumonia; †Pneumocystis carinii pneumonia; §Cytomegalovirus retinitis with vision loss.

Depressive disorder, hepatitis C infection, and diabetes mellitus were identified as common medical conditions in Medicaid claims for persons living with HIV infection (Table 8). As persons living with HIV infection continue to age and live longer lives, the conditions identified in these data suggest the importance of providing ongoing, comprehensive care for PLWH[3,4].

Table 8. Most commonly diagnosed medical conditions among Medicaid clients living with HIV infection — Montana, 2004–2008.

Diagnosis	*% Medicaid clients living with HIV infection*	*95% CI*
Depressive disorder	29	22–37
Diabetes mellitus	10	5–14
Hepatitis C infection	27	20–34
Opportunistic infection*	27	20–34

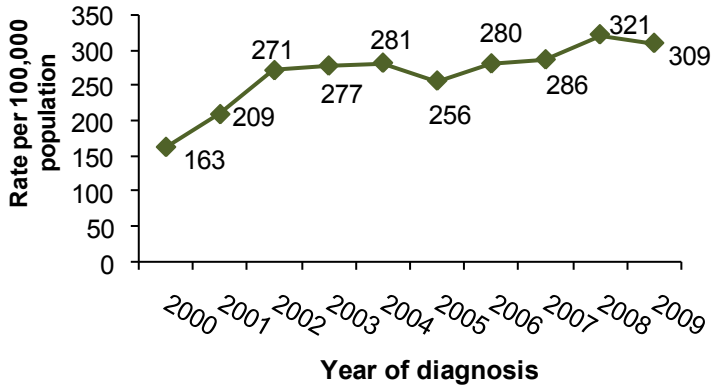
*Excluding recurrent pneumonia

Key Points — HIV — Special Topics:

- Since 1985, of the 955 persons diagnosed with HIV infection in Montana, 101 (11%) of those persons are known to be co-infected with hepatitis C.
- Males are most often co-infected with HIV and hepatitis C (84%); of co-infected males, the most common risk categories reported are MSM/IDU (33%), MSM (30%), and IDU (24%).
- In Montana from 2004 to 2008, of the 11,330 Medicaid claims for persons living with HIV infection, 62 (2%) were for OIs; 7 (11%) of these diagnoses were reported to public health.
- Among Medicaid clients 2004 to 2008, the most common AIDS-defining OIs diagnosed were wasting syndrome (6.5/100,000 population), Pneumocystis carinii pneumonia (5.3), esophageal candidiasis (5.3), HIV encephalopathy (4.7), and cytomegalovirus retinitis (4.1).
- Depressive disorder, diabetes mellitus, hepatitis C infection, and OIs were commonly diagnosed conditions among Medicaid clients living with HIV infection, 2004 to 2008.

Chlamydia

Figure 13. Chlamydia incidence rates — Montana, 2000–2009.



Chlamydia is the most commonly reported disease in Montana and the US. Since 2000, the rate of chlamydia cases in Montana has doubled to 309/100,000 in 2009 (n=2993) (Figure 13); this compared with a US rate of 401 cases/100,000 population in 2008. The increase in Montana might be the result of increased screening, improved sensitivity of tests and reporting, and/or increased burden of disease.

Figure 14. Chlamydia incidence rates by age category — Montana, 2009.

In 2009, 42% of chlamydia cases were diagnosed in persons aged 20–24 years (Figure 14). Based on population, persons in the 20–24 and 15–19 years age categories had the highest rates of infection (Figure 15).

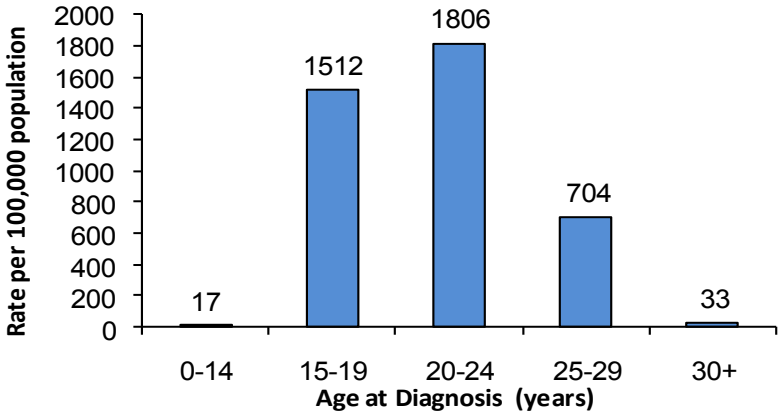
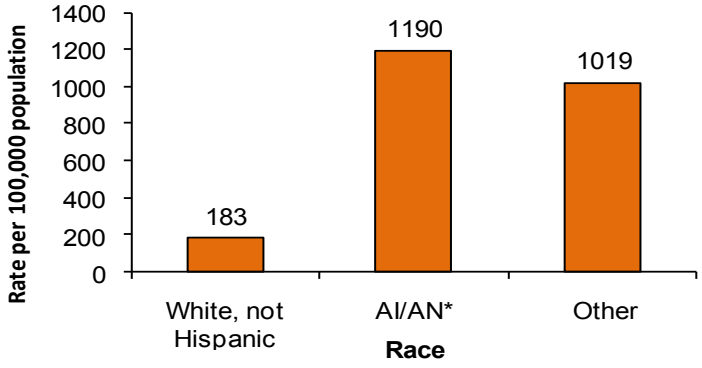


Figure 15. Chlamydia incidence rates by race — Montana, 2009.

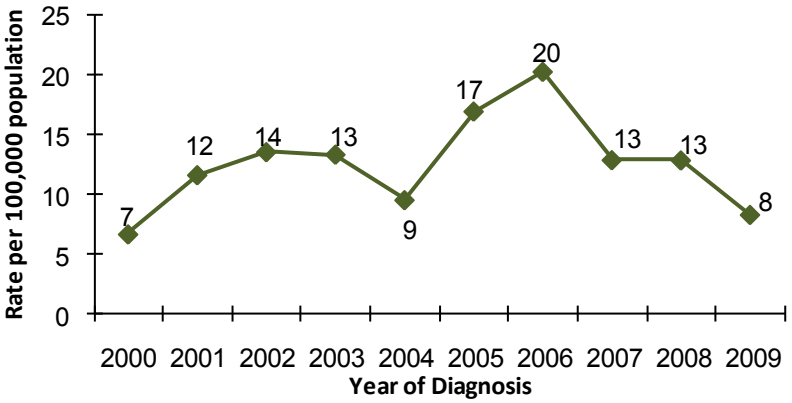


*American Indian/Alaskan Native

In 2009, nearly twice as many reported chlamydia cases occurred in persons classified as White, not Hispanic compared with other races. However, the incidence rate was 7 times higher for AI/AN compared with Whites (Figure 15), although 424 (14%) cases did not have a race classification; assignment of a race classification to these cases could change significantly the incidence rates for a specific race. Therefore, these data should be interpreted cautiously.

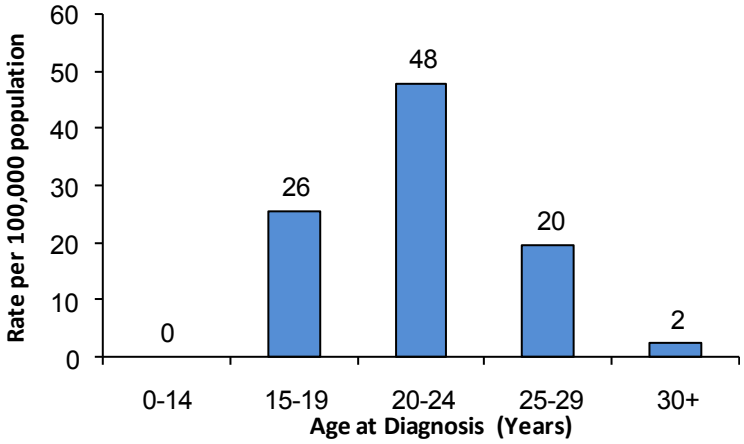
Gonorrhea

Figure 16. Gonorrhea incidence rates — Montana, 2000–2009.



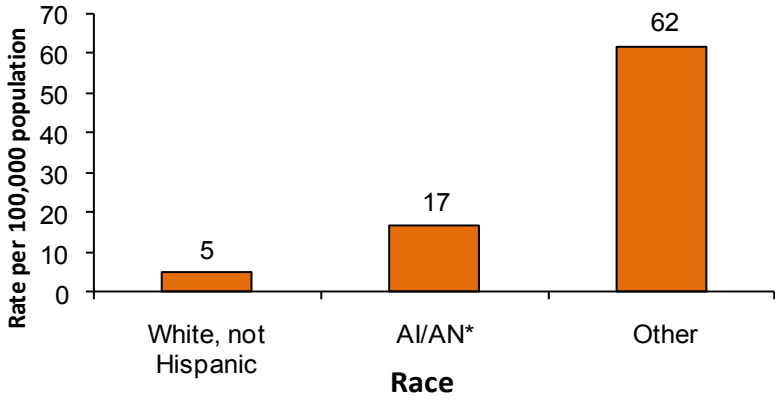
Since 2000, aside from a small increase in 2005 and 2006, the rate of gonorrhea infections has remained between 7–14 cases/100,000 population (Figure 16). In 2009, the rate of gonorrhea infections in Montana was 8/100,000 population (n=80) compared with a US rate of 112/100,000 population in 2008.

Figure 17. Gonorrhea incidence rates by age category — Montana, 2009.



In 2009, persons aged 20–24 years accounted for the majority of gonorrhea cases and had the highest incidence rate (Figure 17). As with chlamydia, this might be, at least partially, the result of more routine screening for STDs in this age category.

Figure 18. Gonorrhea incidence rates by race — Montana, 2009.



*American Indian/Alaskan Native

In 2009, the gonorrhea incidence rate was highest in persons reporting their race as other than White, not Hispanic or AI/AN (Figure 18). Of the 80 reported cases of gonorrhea in 2009, 16(20%) had no reported race; assignment of a race classification to these cases could change significantly the incidence rates for a specific race. Therefore, these data should be interpreted cautiously.

Geography

Chlamydia and gonorrhea infections are reported statewide (Figures 19, 20). Reported chlamydia case rates were highest near large cities and American Indian reservations. Reported gonorrhea case rates were only calculated for counties with more than one case.

Figure 19. Incidence rates of chlamydia, by County — Montana, 2009.

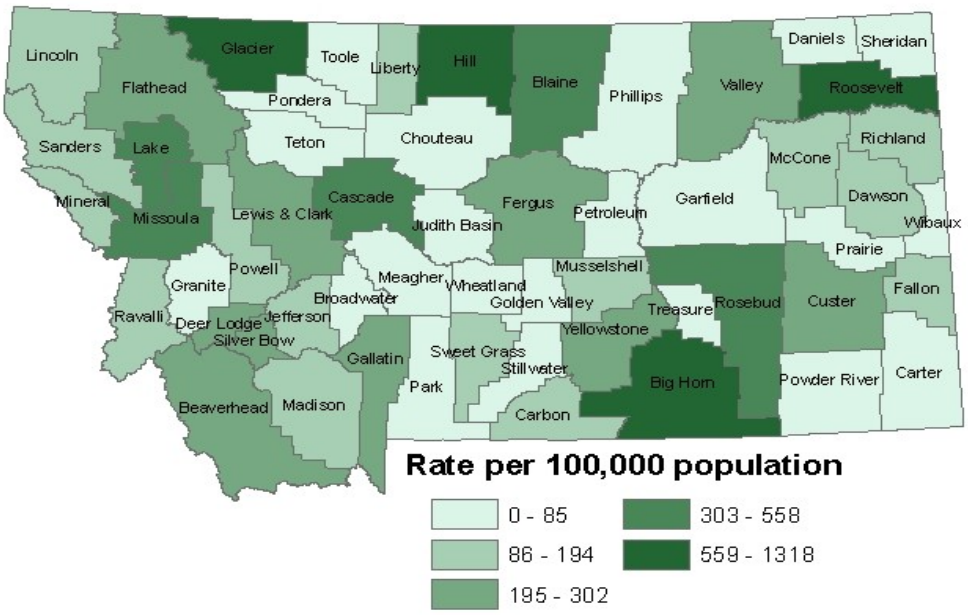
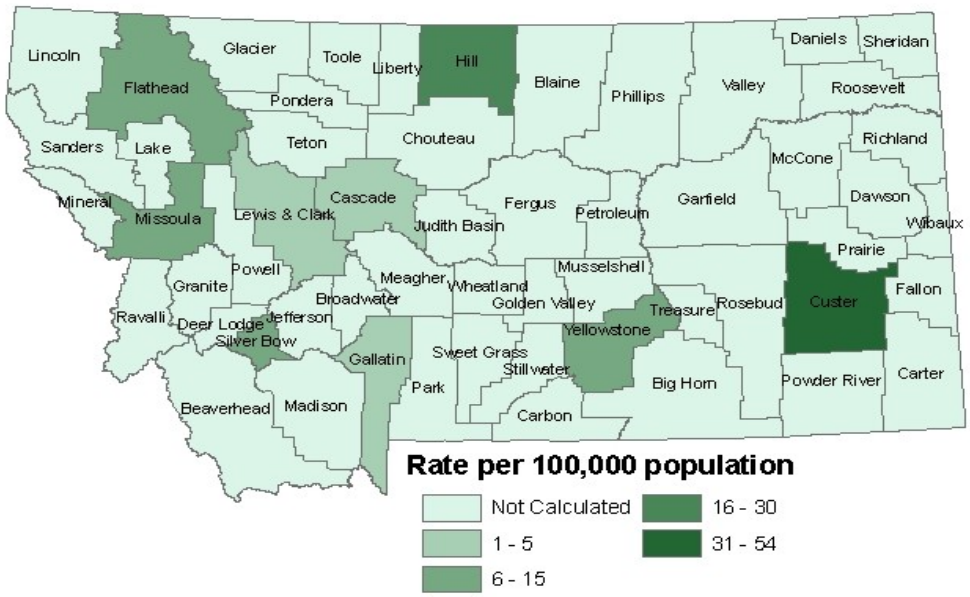
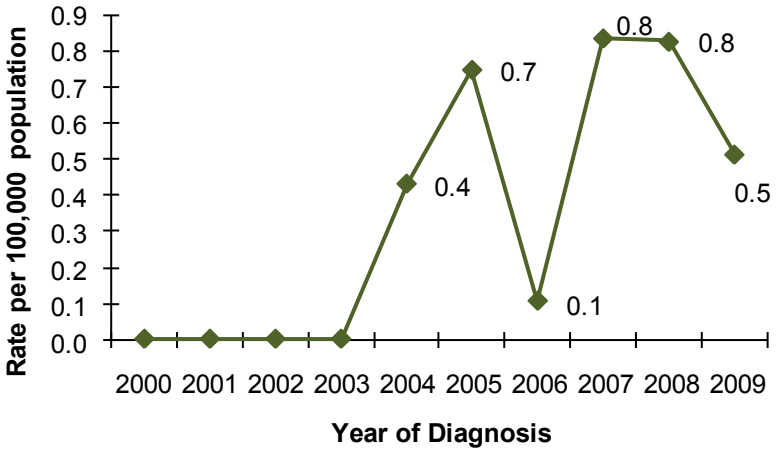


Figure 20. Incidence rates of gonorrhea, by County — Montana, 2009.



Primary and Secondary Syphilis

Figure 21. Incidence rate of syphilis — Montana, 2000–2009.



Similar to the US, the incidence rate of syphilis increased in Montana 2000–2008 (Figure 21). In 2008, the incidence rate for syphilis in Montana was 0.8 cases/100,000 population compared with 4.5 cases/100,000 population in the U.S. In 2009, the incidence rate in Montana decreased to 0.5/100,000 population (n=5).

In 2009, two (40%) of the reported syphilis cases were >30 years of age, two (40%) were 25–29 years, and one (20%) 20–24 years. Nationally, in 2008, the highest rate of syphilis infections was reported for persons aged 20–24 years. All five of the reported syphilis cases were male.

Key Points — Other STDs:

Chlamydia

- In 2009, Chlamydia was the most commonly reported disease in Montana with an incidence rate of 309/100,000 population.
- Since 2000, the incidence rate of Chlamydia has continued to increase, perhaps related to higher frequency of routine screening and more sensitive screening tests.
- The majority of chlamydia cases occur among persons aged 20–24 years and 15–19 years.
- The chlamydia incidence rate among AI/AN is seven times higher compared with White, not Hispanics; however, given the significant number of cases without a race classification, these data should be interpreted with caution.

Gonorrhea

- In Montana during 2009, the gonorrhea incidence rate (8/100,000 population) remained low compared with the US incidence rate in 2008 (112/100,000 population).
- The majority of chlamydia cases occur among persons aged 20–24 years and 15–19 years.
- In 2009, the gonorrhea incidence rate was higher among AI/AN compared with White, not Hispanics; however, given the significant number of cases without a race classification, these data should be interpreted with caution.

Syphilis

- The syphilis incidence rate increased in Montana from 2003 to 2009.
- In 2008, the incidence rate of syphilis in the US was nearly 6 times higher than in Montana.

Appendix

Cases Reported in 2009

	Chlamydia					Gonorrhea				
	AI/AN	White	Other	Unknown	Total	AI/AN	White	Other	Unknown	Total
BEAVERHEAD	1	16	2	1	20	0	0	0	0	0
BIG HORN	113	4	0	11	128	0	0	0	0	0
BLAINE	30	1	0	2	33	1	0	0	0	1
BROADWATER	0	3	0	0	3	0	0	0	0	0
CARBON	0	5	0	5	10	0	0	0	0	0
CARTER	0	1	0	0	1	0	0	0	0	0
CASCADE	32	207	52	18	309	0	3	0	1	4
CHOUTEAU	0	3	0	1	4	0	0	0	0	0
CUSTER	3	23	2	3	31	1	2	2	1	6
DANIELS	0	0	0	1	1	0	0	0	0	0
DAWSON	0	9	1	3	13	0	0	0	2	2
DEER LODGE	0	19	3	4	26	0	0	1	0	1
FALLON	0	5	0	0	5	0	0	0	0	0
FERGUS	0	5	1	18	24	0	0	0	0	0
FLATHEAD	2	164	5	7	178	0	6	1	2	9
GALLATIN	5	201	6	31	243	0	2	0	2	4
GARFIELD	128	6	1	4	139	0	0	0	0	0
GLACIER	0	0	0	0	0	0	0	0	0	0
GOLDEN VALLEY	0	0	0	0	0	0	0	0	0	0
GRANITE	0	0	0	0	0	0	0	0	0	0
HILL	131	18	7	7	163	4	0	1	0	5
JEFFERSON	2	14	2	1	19	0	0	0	0	0
JUDITH BASIN	0	0	0	0	0	0	0	0	0	0
LAKE	88	43	17	12	160	1	1	0	0	2
LEWIS AND CLARK	4	110	7	44	165	0	3	0	0	3
LIBERTY	0	0	0	2	2	0	0	0	0	0
LINCOLN	0	24	0	2	26	0	0	0	0	0
MADISON	0	4	0	3	7	0	0	0	1	1
MCCONE	0	2	0	1	3	0	1	0	0	1
MEAGHER	0	0	1	0	1	0	0	0	0	0
MINERAL	0	4	0	0	4	0	0	0	0	0
MISSOULA	20	286	17	106	429	1	6	0	3	10
MUSSELSHELL	0	2	1	4	7	0	0	0	0	0
PARK	0	6	0	4	10	0	0	0	0	0
PETROLEUM	0	0	0	0	0	0	0	0	0	0
PHILLIPS	0	0	0	1	1	0	0	0	0	0
PONDERA	1	2	0	2	5	0	0	0	0	0
POWDER RIVER	0	0	0	0	0	0	0	0	0	0
POWELL	1	5	1	4	11	0	0	0	0	0
PRAIRIE	0	0	0	0	0	0	0	0	0	0
RAVALLI	3	28	7	11	49	0	1	0	0	1
RICHLAND	1	12	0	5	18	0	0	0	1	1
ROOSEVELT	126	2	0	5	133	0	0	0	0	0
ROSEBUD	39	6	0	5	50	1	0	0	0	1
SANDERS	1	14	0	0	15	0	0	0	0	0
SHERIDAN	0	1	0	1	2	0	0	0	0	0
SILVER BOW	9	49	1	21	80	0	3	0	2	5
STILLWATER	0	3	1	2	6	0	0	0	0	0
SWEET GRASS	0	1	0	4	5	0	0	0	0	0
TETON	0	1	0	1	2	0	0	0	0	0
TOOLE	0	3	0	0	3	0	0	0	0	0
TREASURE	0	0	0	0	0	0	0	0	0	0
VALLEY	6	10	0	0	16	1	0	0	0	1
WHEATLAND	0	1	0	0	1	0	0	0	0	0
WIBAUX	0	0	0	0	0	0	0	0	0	0
YELLOWSTONE	39	295	30	66	430	1	15	5	1	22
TOTAL	**785**	**1619**	**165**	**424**	**2993**	**11**	**43**	**10**	**16**	**80**

Cases Reported in 2009					
	Syphilis				
	AI/AN	White	Other	Unknown	Total
BEAVERHEAD	0	0	0	0	0
BIG HORN	0	0	0	0	0
BLAINE	0	0	0	0	0
BROADWATER	0	0	0	0	0
CARBON	0	0	0	0	0
CASCADE	0	0	0	0	0
CHOUTEAU	0	0	0	0	0
CUSTER	0	0	0	0	0
DANIELS	0	0	0	0	0
DAWSON	0	0	0	0	0
DEER LODGE	0	0	0	0	0
FALLON	0	0	0	0	0
FERGUS	0	0	0	0	0
FLATHEAD	0	1	0	0	1
GALLATIN	0	0	0	0	0
GARFIELD	0	0	0	0	0
GLACIER	0	0	0	0	0
GOLDEN VALLEY	0	0	0	0	0
GRANITE	0	0	0	0	0
HILL	0	0	0	0	0
JEFFERSON	0	0	0	0	0
JUDITH BASIN	0	0	0	0	0
LAKE	0	0	0	0	0
LEWIS AND CLARK	0	0	0	0	0
LIBERTY	0	0	0	0	0
LINCOLN	0	0	0	0	0
MADISON	0	0	0	0	0
MCCONE	0	0	0	0	0
MEAGHER	0	0	0	0	0
MINERAL	0	0	0	0	0
MISSOULA	0	1	0	1	2
MUSSELSHELL	0	0	0	0	0
PARK	0	0	0	0	0
PETROLEUM	0	0	0	0	0
PHILLIPS	0	0	0	0	0
PONDERA	0	0	0	0	0
POWDER RIVER	0	0	0	0	0
POWELL	0	0	0	0	0
PRAIRIE	0	0	0	0	0
RAVALLI	0	0	0	0	0
RICHLAND	0	0	0	0	0
ROOSEVELT	0	0	0	0	0
ROSEBUD	0	0	0	0	0
SANDERS	0	0	0	0	0
SHERIDAN	0	0	0	0	0
SILVER BOW	0	0	0	0	0
STILLWATER	0	0	0	0	0
SWEET GRASS	0	0	0	0	0
TETON	0	0	0	0	0
TOOLE	0	0	0	0	0
VALLEY	0	0	0	0	0
WHEATLAND	0	0	0	0	0
WIBAUX	0	0	0	0	0
YELLOWSTONE	0	2	0	0	2
TOTAL	**0**	**4**	**0**	**1**	**5**

Glossary

ACS (American Community Survey) — nationwide survey designed to provided updated estimates for information between census years, such as race, age, income, home value, etc.

ADAP (AIDS Drug Assistance Program) — provides HIV-related prescription drugs to uninsured and underinsured people living with HIV infection.

AIDS (acquired immunodeficiency syndrome) — the condition caused by HIV infection and defined by a clinical diagnosis of at least one of 26 opportunistic infections, or CD4+-positive lymphocyte count below 200 or 14%.

BRFSS (Behavioral Risk Factor Surveillance System) — national landline phone-based survey that collects state-based information on health-risk behaviors among adult populations.

CARE Act (Comprehensive AIDS Resources Emergency Act) — Federal legislation created to address the health and support needs of persons living with HIV infection and their families.

CDC (Centers for Disease Control and Prevention) — Federal agency under the Department of Health and Human Services concerned with maintaining the health of the nation's population.

HAART (highly active antiretroviral therapy) — combination prescription drug therapy for persons living with HIV infection.

HIV (human immunodeficiency virus) — a virus spread from person-to-person through contact with infected blood products or other infected bodily fluids.

IDU (injection drug user) — adults or adolescents 13 years of age or older who have injected illicit or nonprescription drugs.

MSM (men who have sex with men) — male adults or adolescents 13 years of age or older who report sexual contact with other men.

MSM/IDU (men who have sex with men and who are injection drug users) — men who report both sexual contact with other men and injecting illicit or nonprescription drugs.

NRS (no risk specified) — persons who have no reported method of exposure to HIV.

MTDPHHS (Montana Department of Public Health and Human Services)

Other (other risk) — includes persons receiving transfusion of blood products, solid organ or tissue transplantation, fetal exposure to HIV-positive mothers perinatally, or infant exposure to breast milk of an HIV-positive mother.

STD (sexually transmitted disease) — a group of diseases transmitted through sexual contact, including but not limited to gonorrhea, herpes, HIV, chlamydia, syphilis, and genital warts.

Endnotes

1. Montana PHSD-County Health Profiles-Data. 2009. http://www.dphhs.mt.gov/PHSD/health-profiles/health-profiles-pronotes.shtml#density

2. Centers for Disease Control and Prevention. Persons tested for HIV-United States, 2006. MMWR 2008; 57:845-849.

3. Ryan White. 2008. http://www.ryanwhite.com/pages/story.html

4. Centers for Disease Control and Prevention. rends in HIV/AIDS Diagnoses Among Men Who Have Sex with Men -33 States, 2001-2006. MMWR 2008; 57:682-686.

5. CDC. Trends in Reportable Sexually Transmitted Diseases in the United States, 2007. http://www.cdc.gov/std/stats07/trends.htm.

Data Sources

1. Montana HIV/AIDS Surveillance Database (eHARS), funded by the Centers for Disease Control and Prevention (CDC)
2. American Community Survey (ACS)
3. Montana Department of Commerce
4. Montana STD Surveillance Database (STD*MIS), funded by the CDC
5. Montana NEDSS Based Surveillance System, funded by the CDC
6. Behavioral Risk Factor Surveillance System (BRFSS)

Data as of: December 31, 2009